

**OPERACIONES CON FRACCIONES (SUMAS Y RESTAS) Ficha 2 Nivel 1**

Calcula y simplifica:

1)  $\frac{2}{3} + \frac{1}{5}$

2)  $\frac{5}{6} - \frac{4}{7}$

3)  $\frac{2}{3} + \frac{7}{6} - \frac{3}{2}$

4)  $\frac{5}{12} - \frac{11}{20} + \frac{7}{15}$

5)  $-\frac{7}{5} + \frac{3}{2} - \frac{1}{10}$

6)  $2 + \frac{1}{6} - \frac{3}{2}$

7)  $\frac{1}{2} - \frac{1}{3} - \frac{1}{5}$

8)  $\frac{3}{5} - \frac{2}{3} + \frac{1}{6} - \frac{3}{4}$

9)  $\frac{7}{5} - \left( \frac{4}{3} + \frac{1}{2} \right) + \frac{3}{10}$

10)  $1 - \left( \frac{2}{3} - \frac{7}{6} \right) - \frac{4}{7}$

### SOLUCIONES

Recuerda que para sumar o restar fracciones tienen que tener el mismo denominador, por tanto, lo primero que habrá que hacer es hallar el mínimo común múltiplo(m.c.m.) de los denominadores para reducir a común denominador.

$$1) \frac{2}{3} + \frac{1}{5} = \frac{10}{15} + \frac{3}{15} = \frac{13}{15}$$

$$\text{m.c.m.}(3, 5)=15$$

$$2) \frac{5}{6} - \frac{4}{7} = \frac{35}{42} - \frac{24}{42} = \frac{11}{42}$$

$$\text{m.c.m.}(6, 7)=42$$

$$3) \frac{2}{3} + \frac{7}{6} - \frac{3}{2} = \frac{4}{6} + \frac{7}{6} - \frac{9}{6} = \frac{2}{6} = \frac{1}{3}$$

$$\begin{array}{l} 3 = 3 \\ 6 = 2 \cdot 3 \\ 2 = 2 \end{array} \left. \vphantom{\begin{array}{l} 3 = 3 \\ 6 = 2 \cdot 3 \\ 2 = 2 \end{array}} \right\} \text{m.c.m.}(3, 6, 2) = 2 \cdot 3 = 6$$

$$4) \frac{5}{12} - \frac{11}{20} + \frac{7}{15} = \frac{25}{60} - \frac{33}{60} + \frac{28}{60} = \frac{20}{60} = \frac{2}{6} = \frac{1}{3}$$

$$\begin{array}{l} 12 = 2^2 \cdot 3 \\ 20 = 2^2 \cdot 5 \\ 15 = 3 \cdot 5 \end{array} \left. \vphantom{\begin{array}{l} 12 = 2^2 \cdot 3 \\ 20 = 2^2 \cdot 5 \\ 15 = 3 \cdot 5 \end{array}} \right\} \text{m.c.m.}(12, 20, 15) = 2^2 \cdot 3 \cdot 5 = 60$$

$$5) -\frac{7}{5} + \frac{3}{2} - \frac{1}{10} = -\frac{14}{10} + \frac{15}{10} - \frac{1}{10} = \frac{0}{10} = 0$$

$$\text{m.c.m.}(5, 2, 10) = 2 \cdot 5 = 10$$

$$6) 2 + \frac{1}{6} - \frac{3}{2} = \frac{12}{6} + \frac{1}{6} - \frac{9}{6} = \frac{4}{6} = \frac{2}{3}$$

$$\text{m.c.m.}(1, 6, 2) = 2 \cdot 3 = 6$$

$$7) \frac{1}{2} - \frac{1}{3} - \frac{1}{5} = \frac{15}{30} - \frac{10}{30} - \frac{6}{30} = \frac{-1}{30} = -\frac{1}{30}$$

$$\text{m.c.m.}(2, 3, 5) = 2 \cdot 3 \cdot 5 = 30$$

$$8) \frac{3}{5} - \frac{2}{3} + \frac{1}{6} - \frac{3}{4} = \frac{36}{60} - \frac{40}{60} + \frac{10}{60} - \frac{45}{60} = \frac{-39}{60} = -\frac{13}{20}$$

$$\text{m.c.m.}(5, 3, 6, 4) = 5 \cdot 3 \cdot 2^2 = 60$$

$$9) \frac{7}{5} - \left( \frac{4}{3} + \frac{1}{2} \right) + \frac{3}{10} = (\text{signo menos delante de paréntesis}) = \frac{7}{5} - \frac{4}{3} - \frac{1}{2} + \frac{3}{10} = \frac{42}{30} - \frac{40}{30} - \frac{15}{30} + \frac{9}{30} = \frac{-4}{30} = -\frac{2}{15}$$

$$\text{m.c.m.}(5, 3, 2, 10) = 5 \cdot 3 \cdot 2 = 30$$

$$10) 1 - \left( \frac{2}{3} - \frac{7}{6} \right) - \frac{4}{7} = 1 - \frac{2}{3} + \frac{7}{6} - \frac{4}{7} = \frac{42}{42} - \frac{28}{42} + \frac{49}{42} - \frac{24}{42} = \frac{39}{42} = \frac{13}{14}$$

$$\text{m.c.m.}(1, 3, 6, 7) = 3 \cdot 2 \cdot 7 = 42$$